Poster Presentations

Poster Title: Issues in Controlling Oxygen Depletion in the San Joaquin River Deep Water Ship Channel: Developing an NPS Nutrient Control Program
Presenter(s): G. Fred Lee, Anne Jones-Lee
Organization: G. Fred Lee and Associates
27298 East El Macero Dr., El Macero, CA 95618; 530-753-9630; gfredlee@aol.com
Brief Description: Nutrients derived from agriculture tailwater releases during the summer and fall, wildlife refuges (wetlands) and some domestic and industrial wastewater discharges stimulate the growth of algae within the San Joaquin River in this watershed. The algal growth in this river and its tributaries leads to low dissolved oxygen problems in the San Joaquin River Deep Water Ship Channel located near Stockton, California. CALFED is making available money for studies to develop the technical information base needed to develop an appropriate TMDL of oxygen demand loads considering the impacts of flow and the channel geometry on oxygen demand sewage capacity. This poster presentation will lay out and discuss issues involved, current status of developing the TMDL, and its implementation.

Poster Title: Farm Water Quality Planning Short Course
Presenter(s): Julie Fallon
Organization: University of California Cooperative Extension (UCCE) San Luis Obispo
2156 Sierra Way, Suite C, San Luis Obispo, CA 93401; jfallon@co.slo.ca.us
Brief Description: This course is a coordinated effort by the University of California Division of Agriculture and Natural Resources cooperating with the USDA Natural Resource Conservation Service (NRCS) to improve water quality education to the irrigated agriculture industry on the central coast of California.

Poster Title: Landscape Management
Presenter(s): Ken Decio
Organization: California Integrated Waste Management Board (CIWMB)
1001 I Street, P.O. Box 4025, Sacramento, CA 95812-4025; 916-341-6586
Brief Description: The CIWMB is responsible for protecting the public's health and safety and the environment through management of the estimated 60 million tons of solid waste generated in California. With more than 30 percent of California's waste stream consisting of compostable organic materials, the CIWMB supports projects that promote waste prevention and recycling of organic materials. The CIWMB is working with local jurisdictions and the commercial landscaping industry to implement more sustainable landscaping practices to reduce green waste, conserve water, reduce pesticide usage, and minimize nonpoint source pollution. The CIWMB also promotes increased use of compost and mulch in agriculture to increase soil organic content, prevent disease in certain crops, reduce nitrates in irrigation runoff, and control erosion on highway rights-of-way, orchards, and hillside vineyards.

Poster Title: Watershed Rehabilitation in Bull Creek: Humboldt County Reducing Nonpoint Source Sediment Input
Presenter(s): Brian Merrill
Organization: California State Parks

North Coast Redwoods District, P.O. Box 2006, Eureka, CA 95521; 707-445-5344; BMERR@parks.ca.gov
Brief Description: Through a comprehensive program of watershed assessment, planning, and rehabilitation, California State Parks is rehabilitating the Bull Creek Watershed. The goal of the program is to identify and treat chronic and potential erosion sites related to past logging and road building activities. Using adaptive management as the cornerstone of the program, techniques for assessment and landform restoration are continuously being improved to lower costs and improve the efficacy of the rehabilitation.

Poster Title: Ventura County Flood Control District NPDES Stormwater Monitoring Program
Presenter(s): Darla Wise and David Thomas
Organization: Ventura County Flood Control District, Water Quality Section
800 South Victoria Ave., Ventura, CA 93009; 805-654-3942; Darla.Wise@mail.co.ventura.ca.us
Brief Description: The monitoring program is part of the Countywide Stormwater Program. This presentation and describes a state-of-the-art automated system that collects water quality samples and monitors water parameters, including flow, pH, temperature, conductivity, ammonia, nitrates-nitrites, dissolved oxygen, turbidity, ORP, and chlorophyll a. The monitoring program also includes a volunteer monitoring effort with Santa Barbara Channel Keeper and Surfrider Foundation and bioassessment of the Ventura River through macroinvertebrate sampling. The exhibit will highlight both the automated and volunteer monitoring efforts.

Poster Title: Improving Nutrient Management for California Agriculture
Presenter(s): Casey Walsh Cady
Organization: California Department of Food and Agriculture
Fertilizer Research and Education Program, 1220 North Street, Room A-472, Sacramento,CA 95814; 916-654-5044
Brief Description: Since 1990, the California Department of Food and Agriculture's Fertilizer Research and Education Program (FREP) has achieved great successes in funding and extending agricultural research in California. The program's mission is to advance the environmental and agronomic use and handling of fertilizer materials. A primary objective is to improve the efficient use of commercial fertilizing materials and minimize nitrogen losses to the environment. From 1990 to 2000, FREP has supported close to 90 research and education projects, for a total amount of $5 million in funding. This presentation will feature the latest information resulting from the projects.

Poster Title: Folsom Lake and Sacramento River Pumpout and Restroom Campaigns
Presenter(s): Elissa Callman
Organization: City of Sacramento
Department of Utilities, 1395 35th Avenue, Sacramento, CA 95822; 916-264-1424
Brief Description: The Folsom Lake and Sacramento River Pumpout and Restroom Campaigns are educational efforts to protect the beneficial uses of Folsom Lake and the American and Sacramento Rivers. The goals of the campaigns are to prevent illegal dumping of sewage from boats and to promote increased use of public pumpouts and restroom facilities. Activities include

distribution of information cards with pollution prevention pointers and maps providing public pumpout and restroom locations to marina tenants and day boaters throughout the boating season. The Folsom Lake Pumpout & Restroom Campaign is a partnership of California State Parks, Folsom Lake Marina, and various American River water purveyors (Arden Cordova Water Service, Carmichael Water District, City of Folsom, City of Roseville, City of Sacramento, and San Juan Water District). The Sacramento River Pumpout & Restroom Campaign is a partnership of the City of Sacramento and the 13 marinas along the Sacramento River from the Feather River confluence to Freeport.

Poster Title: Pervious Concrete: Infiltration BMP with "Cool" Properties
Presenter(s): Andy Youngs
Organization: California Cement Promotion Council (CCPC)
6723A 32nd Street, North Highlands, CA 95660; 916-332-4841
Brief Description: Pervious concrete pavement is an environmentally friendly, long-life pavement material that serves as an infiltration BMP for parking areas, driveways, and sidewalks. Pervious concrete, along with light-colored roofs and use of trees, is also part of the important urban heat island mitigation strategies being endorsed by the Cool Communities program. The California Cement Promotion Council will present the current state-of-the-art in pervious concrete, including examples of parking areas with zero stormwater runoff.

Poster Title: Water-Wise Pest Control Program
Presenter(s): Bill Busath
Organization: City of Sacramento
Department of Utilities, 1395 35th Avenue, Sacramento, CA 95822; 916-264-1434
Brief Description: The Water-Wise Pest Control Program seeks to protect the health and vitality of Sacramento's creeks and rivers by providing residents with information on healthy pest control and gardening practices. The program is a partnership between the Sacramento Stormwater Management Program, the UC Master Gardeners, and the UC Integrated Pest Management Project. Participants in the Sacramento Stormwater Management Program include the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Sacramento. This program is funded by a CALFED Bay Delta Category III Ecosystem Restoration Grant.

Poster Title: Use of Sediment Pond and Vegetative Filter to Mitigate Nursery Surface Runoff
Presenter(s): Darren Haver
Organization: University of California
Cooperative Extension, South Coast Research and Extension Center, 7601 Irvine Blvd., Irvine, CA 92618; 949-733-3970
Brief Description: To mitigate the movement of sediment, nutrients, and pesticides in surface runoff, a nursery in Orange County, with the assistance of the University of California Cooperative Extension, installed a sediment pond and a vegetative filter. The sediment pond is used to settle large particles before the runoff enters the vegetative filter. The vegetative filter consists of hybrid Canna lilies placed bare root into heavy-duty plastic mesh baskets, which are then submerged into a concrete-lined runoff channel. Nutrient and flow analyses are performed

weekly at a point upstream of the vegetative filter and another point downstream of the vegetative filter. Resident time is variable depending on the overall irrigation requirements of the nursery, but it normally averages 3-4 hours during peak irrigation. Preliminary results show that the overall volume of water leaving the nursery is reduced, resulting in a reduction in nitrogen and phosphorus loading. However, during the cooler months of the year, the vegetative filter strip is not efficient in removing water and nutrients from the channel because of a decrease in transpiration and growth rates of the Canna lilies.

Poster Title: Citizen Bioassessment Monitoring
Presenter(s): Chris Rosamond and Emily Husted
Organization: Truckee River Aquatic Monitors (TRAM)
P.O. Box 1422, Truckee, CA 96160
Brief Description: Truckee River Aquatic Monitors (TRAM) is a group of volunteer citizens who collect bioassessment data using benthic macroinvertebrates within the Truckee River Watershed. The group received startup 319(h) funding in the spring of 1999 and has successfully collected and analyzed data for three successive seasons. TRAM recently partnered with the Truckee River Habitat Restoration Group to monitor selected stream restoration projects and continue collecting baseline and long-term monitoring data within wadable streams of the Truckee River Watershed. TRAM follows the methodology of the California Stream Bioassessment Procedures, which includes chemical and physical stream assessment.

Poster Title: High-Tech Zap or Mother Nature's Caress? Comparing an Ultraviolet Package Plant to a Wetland Capture and Treatment Network
Presenter(s): Nancy Palmer
Organization: City of Laguna Niguel Department of Public Works
27791 La Paz Road, Laguna Niguel, CA 92677
Brief Description: Driven by an abatement order, the City of Laguna Niguel has been experimenting with two very different urban runoff structural treatments, both retrofitted to an existing suburban storm drain system, to reduce fecal coliform bacteria concentrations to State objectives. The "quick fix" solution was to lease a temporary multistep filtration and ultraviolet radiation equipment package that almost sterilizes dry-season flow from the main pipe outfall. The long-term best-management solution will be the Wetland Capture And Treatment (WetCAT) Network, which will complete a low-flow piping system, parallel to the existing high-flow storm drains, to divert virtually all gutter low flows into three constructed natural treatment wetlands before releasing cleaned-up water into the creek downstream. The WetCAT Network received number 1 ranking statewide for Proposition 13 funding under the Coastal Nonpoint Source grant program. The presentation will address design and regulatory parameters, system schematics, treatment effectiveness, and costs for both approaches.

Poster Title: How Do You Measure Success? Agricultural BMP Implementation as an Indirect Measurement for Reduction of Nitrate to Groundwater, 2001 Nitrate Management Survey
Presenter(s): Kathy Nitayangkul
Organization: Monterey County Water Resources Agency
893 Blanco Circle, P.O. Box 930, Salinas, CA 93902

Brief Description: Nitrate contamination throughout the Salinas Valley's extensive groundwater system monitoring network has been documented in a series of reports. If left unattended, the high levels of nitrate threaten to result in regulatory action from the State Water Resources Control Board. These actions would likely have significant economic consequences to the water users of the Salinas Valley. Measuring the reduction of nitrate concentrations in groundwater due to increased fertilizer and irrigation management practices is a very difficult process because of the many factors that influence water quality. Consequently, water resource managers have resorted to using indirect methods to measure improved water quality resulting from better nutrient management. One method being used is an Outreach and Education Program to the agricultural community. The program focuses on the distribution of scientifically proven information regarding on-farm fertilizer and irrigation practices and also on the measurement of growers' efforts to implement them. The improvements in grower practices are assumed reductions in nitrate loads. Baseline data was gathered as part of a 319(h) Clean Water Act Grant. The 2001 Nutrient Management Survey was distributed to more than 300 growers in the Salinas Valley. This short, precise, and anonymous survey will provide the agency and the California State Water Resources Control Board with a "baseline" record of Best Management Practices and Measures that growers are currently using in the Salinas Valley. In future years the survey will be distributed again to evaluate changes in fertilizer and irrigation practices over time. This poster summarizes the results of the survey and the need for continued outreach and education.